



Bristol Radio Control Model Aircraft Club (BRCMAC)

March 2013 Newsletter

Chairman's Chat

Welcome to our second newsletter this year

As usual the weather has been rubbish with only a few flying opportunities. Since summer starts officially at the end of this month, we can but hope the weather improves.

Unfortunately we have been informed that Much Marcle show has been cancelled this year as the organisers were uncertain that the site would be in suitable condition

We have some articles sent in by our members and we would like to encourage more of you to contribute to keep the newsletter interesting.

Our thanks to Martin Fardell who ran a practical presentation at our club night on Thursday on how to cast polyester resin dummy radial engines (and almost any other aircraft component you could need on your model). Looks as though a few of us will be trying this out.

I promised that I would not say anything about John Harris trying to fly his Acrowot 2.4 ghz on the wrong programme and blaming the spectrum transmitter. Oops I wasn't supposed to say that, sorry John!

Anyway enough of my ramblings, look forward to seeing you down the field

Ian Ferrari

Next time you talk with our illustrious Chairman, ask him how he managed to lose a propeller in a lake ???????? -- J Paton

No idea what you mean John - IF

Site Security

We have had a couple more instances of our gate being taken off its hinges by unwanted visitors to the field, fortunately without permanent damage. We are unsure if it is someone gaining access to fly or just for the crack, but if you see or find anything unusual at the field, *do not challenge any strangers unless you are confident*, but an undercover photo of person or vehicle would be useful.

Then contact Ian Ferrari at chairman@brcmac.org.uk or if urgent mobile: 07425 752694, John Paton at secretary@brcmac.org.uk or if urgent mobile: 07969 113549 or Peter Bennett on mobile: 07792 596463 or any Committee Member as soon as possible.

2013 Committee Meeting and Update

The second Committee meeting of 2013 was held on 5th March and several issues looking at the current state and long term future of the club have been raised and will be addressed.

We currently have 52 members, 8 of which are new members which is encouraging so early in the year.

Quite a few existing members have not as yet re-newed for 2013 and the Committee have decided that any current member not re-newing their membership by the end of April will cease to be an active member, so if you intend to use the club's facilities, please send your subs to the Treasurer or pass them to any Committee Member as soon as possible.

A date of 13th July has been set for the club BBQ at the field, as yet no details of format or activities are available but make a note of the date. Hot, calm weather has been pre-ordered.

We now have a new Windssock (at last) which should soon be blowing in the wind, and an 'Aeroloop' model retriever is on order and will be available in the port a cabin.

Our summer monthly club meetings, chat and update, will continue to be held at the field on the first Tuesday of the month (April to September), and our winter meetings (October to March) will be on the first Thursday of the month, hopefully continuing at the Swan public house on the High Street, Thornbury which will be confirmed later.

Site Maintenance

A few pieces of work have been identified to maintain the site and infrastructure these being:

- Some holes on the track need the scalpings re-distributing
- The scalpings in the car park area require spreading
- Both bridges need inspecting for wear, the one next to the compound certainly needs some repair
- A few trees in the compound area could do with topping
- The port a cabin needs its fascia's replacing

A working party will be called soon and any help will be greatly appreciated.

Making transfers

Julian Forsey has been creative in making personalised transfers for his models and has been persuaded to share the process with us, many thanks Julian.

HOW TO MAKE YOUR OWN WATERSLIDE TRANSFER DECALS

Now that I'm a retired old git, I've finally found the time to re-commence work on some Schuberts (as in Unfinished Symphony) which have been mouldering in the loft for a good few years. There's a ¼ scale Tiggy, a Pete Russell Striker, and an old Mercury Matador vintage model, plus a few others. I decided to go for the easiest first, so that I could get my balsa bashing skills back up to standard before tackling the more complex ones. So the Mercury Matador (that has been hanging around in the loft for the past 23 years!) was brought, blinking, into the daylight.



Progress has been good and I'm now at the covering stage. There were no decals in the original kit, and I fancied having the old Mercury logo on the wing. I found one on-line: I used Google, switched it to "images" and searched for "Mercury Matador model aircraft". Lo and behold the



image below turned up. Lovely! I remembered seeing somewhere that it was possible to use an ordinary, home computer inkjet printer to produce water-slide transfers and so I did a

bit of rummaging around and found out how to do it. It works! So far I have produced and applied the Mercury logo to the Matador wing, as hoped for, and I have started personalising my Acrowot. The latter project is a bit disappointing, because the background colour scheme is a bit bright and detracts from my chosen picture - a



provocative pose by Betty Boo! Anyway, enough rambling. Here's how to do it.

What you need

- A computer
- A printer (ink-jet or laser)
- A packet of InkJet Water Slide Decal Paper (or the Laser printer version). You want the clear-background sort, not the white background.
- An aerosol can of acrylic spray

You may wish to form a little consortium with other club members and share the cost, as 10 sheets of paper and a can of acrylic spray will set you back just over £20. Both items come from Crafty Computer Paper on the web.

The paper is at http://www.craftycomputerpaper.co.uk/-Inkjet-Water-Slide-Decal-Paper_151.htm

and the acrylic at http://www.craftycomputerpaper.co.uk/-Acrylic-Spray-UK-SALES-ONLY_SPRAY-ACRYLIC.htm

What You Do

If you need some help, feel free to give me a call, contact details at the end of this article. If you want to create an aircraft registration, or some other lettering, use the Word Art facility in Word, rather than ordinary paragraph typing. You can move lettering around that way. Better still, use a drawing package such as CorelDraw.

Anyway, once you've squeezed as much as you can onto the sheet, the rest is dead easy.



Print the sheet, with the printer set to the highest quality it can manage. Then Blu-Tak a big piece of polythene sheet to your workshop wall. Blu-Tak the decal sheet to the middle of the polythene sheet and spray it with the Acrylic Spray you bought. Follow the instructions, give it three coats. Once it's thoroughly dry, its time to apply the transfers.

You can probably remember the process from your childhood! Just cut out the transfer you want to start with, and pop it into a shallow tray of tepid water. It will curl up and then relax into the water. Carefully push it completely under the water. After two or three minutes, the transfer will become slippery and can be moved around on the backing paper. Carefully lift it, with the backing paper, out of the water and place it next to where you want it to be. Then you just gently slide the transfer's edge onto the right place, and slide the backing paper away - like pulling a tablecloth from under the crockery, but very much more slowly!

Throw away the backing paper and, and gently push out any air bubbles. Then leave it to dry for a couple of days.

Once it's thoroughly dry, you can apply fuel proofer. And that's it!

Give it a whirl, and let me know how you get on.

If you need any help you can call me on 01453 544686, or email me at julian_forsey@hotmail.com.

Good luck!

Amazing WWII Aircraft Facts

Doug Paul has been doing a bit of winter reading and found the following which is very interesting and certainly makes one think, many thanks Doug.

Below is an excellent summary of the effort required in WWII. It focuses on the American side of things, but the British, Germans and Japanese expended comparable energy and experienced similar costs. Just one example for the Luftwaffe; about 1/3 of the Bf 109s built were lost in non-combat crashes. After Midway, the Japanese experience level declined markedly, with the loss of so many higher-time naval pilots.

Most Americans who were not adults during WWII have no understanding of the magnitude of it.

This listing of some of the aircraft facts gives a bit of insight to it.

276,000 aircraft manufactured in the US .

43,000 planes lost overseas, including 23,000 in combat.

14,000 lost in the continental U.S.

The US civilian population maintained a dedicated effort for four years, many working long hours seven days per week and often also volunteering for other work.

WWII was the largest human effort in history.

Statistics from Flight Journal magazine.

THE PRICE OF VICTORY (cost of an aircraft in WWII dollars)

B-17	\$204,370.	P-40	\$44,892.
B-24	\$215,516.	P-47	\$85,578.
B-25	\$142,194.	P-51	\$51,572.
B-26	\$192,426.	C-47	\$88,574.
B-29	\$605,360.	PT-17	\$15,052.
P-38	\$97,147.	AT-6	\$22,952.

PLANES A DAY WORLDWIDE

From Germany's invasion of Poland Sept. 1, 1939 and ending with Japan 's surrender Sept. 2, 1945 ---
2,433 days

From 1942 onward, America averaged 170 planes lost a day.

How many is a 1,000 planes? B-17 production (12,731) wingtip to wingtip would extend 250 miles. 1,000 B-17s carried 2.5 million gallons of high octane fuel and required 10,000 airmen to fly and fight them.

THE NUMBERS GAME

9.7 billion gallons of gasoline consumed, 1942-1945.
 107.8 million hours flown, 1943-1945.
 459.7 billion rounds of aircraft ammo fired overseas, 1942-1945.
 7.9 million bombs dropped overseas, 1943-1945.
 2.3 million combat sorties, 1941-1945 (one sortie = one takeoff).
 299,230 aircraft accepted, 1940-1945.
 808,471 aircraft engines accepted, 1940-1945.
 799,972 propellers accepted, 1940-1945.

WWII MOST-PRODUCED COMBAT AIRCRAFT

Ilyushin IL-2 Sturmovik	36,183
Yakovlev Yak-1,-3,-7, -9	31,000+
Messerschmitt Bf-109	30,480
Focke-Wulf Fw-190	29,001
Supermarine Spitfire/Seafire	20,351
Convair B-24/PB4Y Liberator/Privateer	18,482
Republic P-47 Thunderbolt	15,686
North American P-51 Mustang	15,875
Junkers Ju-88	15,000
Hawker Hurricane	14,533
Curtiss P-40 Warhawk	13,738
Boeing B-17 Flying Fortress	12,731
Vought F4U Corsair	12,571
Grumman F6F Hellcat	12,275
Petlyakov Pe-2	11,400
Grumman F6F Hellcat	12,275
Lockheed P-38 Lightning	10,037
Mitsubishi A6M Zero	10,449
North American B-25 Mitchell	9,984
Lavochkin LaGG-5	9,920
Grumman TBM Avenger	9,837
Bell P-39 Airacobra	9,584
Nakajima Ki-43 Oscar	5,919
DeHavilland Mosquito	7,780
Avro Lancaster	7,377
Heinkel He-111	6,508
Handley-Page Halifax	6,176
Messerschmitt Bf-110	6,150
Lavochkin LaGG-7	5,753
Boeing B-29 Superfortress	3,970
Short Stirling	2,383

Sources: Rene Francillon, Japanese Aircraft of the Pacific war; Cajus Bekker, The Luftwaffe Diaries; Ray Wagner, American Combat Planes; Wikipedia.

According to the AAF Statistical Digest, in less than four years (December 1941- August 1945), the US

Army Air Forces lost 14,903 pilots, aircrew and assorted personnel plus 13,873 airplanes --- *inside the continental United States.*

They were the result of 52,651 aircraft accidents (6,039 involving fatalities) in 45 months.

Think about those numbers. They average 1,170 aircraft accidents per month---- nearly 40 a day. (Less than one accident in four resulted in totaled aircraft, however.)

It gets worse.....

Almost 1,000 Army planes disappeared en route from the US to foreign climes. But an eye-watering 43,581 aircraft were lost overseas including 22,948 on combat missions (18,418 against the Western Axis) and 20,633 attributed to non-combat causes overseas.

In a single 376 plane raid in August 1943, 60 B-17s were shot down. That was a 16 percent loss rate and meant 600 empty bunks in England . In 1942-43 it was statistically impossible for bomber crews to complete a 25-mission tour in Europe .

Pacific theatre losses were far less (4,530 in combat) owing to smaller forces committed. The worst B-29 mission, against Tokyo on May 25, 1945, cost 26 Superfortresses, 5.6 percent of the 464 dispatched from the Marianas .

On average, 6,600 American servicemen died per month during WWII, about 220 a day. By the end of the war, over 40,000 airmen were killed in combat theatres and another 18,000 wounded. Some 12,000 missing men were declared dead, including a number "liberated" by the Soviets but never returned. More than 41,000 were captured, half of the 5,400 held by the Japanese died in captivity, compared with one-tenth in German hands. Total combat casualties were pegged at 121,867.

US manpower made up the deficit. The AAF's peak strength was reached in 1944 with 2,372,000 personnel, nearly twice the previous year's figure.

The losses were huge---but so were production totals. From 1941 through 1945, American industry delivered more than 276,000 military aircraft. That number was enough not only for US Army, Navy and Marine Corps, but for allies as diverse as Britain , Australia , China and Russia . In fact, from 1943 onward, America produced more planes than Britain and Russia combined. And more than Germany and Japan together 1941-45.

However, our enemies took massive losses. Through much of 1944, the Luftwaffe sustained uncontrolled hemorrhaging, reaching 25 percent of aircrews and 40 planes a month. And in late 1944 into 1945, nearly half the pilots in Japanese squadrons had flown fewer than 200 hours. The disparity of two years before had been completely reversed.

Experience Level:

Uncle Sam sent many of his sons to war with absolute minimums of training. Some fighter pilots entered combat in 1942 with less than one hour in their assigned aircraft.

The 357th Fighter Group (often known as The Yoxford Boys) went to England in late 1943 having trained on P-39s. The group never saw a Mustang until shortly before its first combat mission.

A high-time P-51 pilot had 30 hours in type. Many had fewer than five hours. **Some had one hour.**

With arrival of new aircraft, many combat units transitioned in combat. The attitude was, "**They all have a stick and a throttle. Go fly `em.**" When the famed 4th Fighter Group converted from P-47s to P-51s in February 1944, there was no time to stand down for an orderly transition. The Group commander, Col. Donald Blakeslee, said, "**You can learn to fly `51s on the way to the target.**"

A future P-47 ace said, "**I was sent to England to die.**" He was not alone. Some fighter pilots tucked their wheels in the well on their first combat mission with one previous flight in the aircraft. Meanwhile, many bomber crews were still learning their trade: of Jimmy Doolittle's 15 pilots on the April 1942 Tokyo raid, only five had won their wings before 1941. All but one of the 16 copilots were less than a year out of flight school.

In WWII flying safety took a back seat to combat. The AAF's worst accident rate was recorded by the A-

36 Invader version of the P-51: a staggering 274 accidents per 100,000 flying hours. Next worst were the P-39 at 245, the P-40 at 188, and the P-38 at 139. All were Allison powered.

Bomber wrecks were fewer but more expensive. The B-17 and B-24 averaged 30 and 35 accidents per 100,000 flight hours, respectively-- a horrific figure considering that from 1980 to 2000 the Air Force's major mishap rate was less than 2.

The B-29 was even worse at 40; the world's most sophisticated, most capable and most expensive bomber was too urgently needed to stand down for mere safety reasons. The AAF set a reasonably high standard for B-29 pilots, but the desired figures were seldom attained.

The original cadre of the 58th Bomb Wing was to have 400 hours of multi-engine time, but there were not enough experienced pilots to meet the criterion. Only ten percent had overseas experience. Conversely, when a \$2.1 billion B-2 crashed in 2008, the Air Force initiated a two-month "safety pause" rather than declare a "stand down", let alone grounding.

The B-29 was no better for maintenance. Though the R3350 was known as a complicated, troublesome power-plant, no more than half the mechanics had previous experience with the Duplex Cyclone. But they made it work.

Navigators:

Perhaps the greatest unsung success story of AAF training was Navigators. The Army graduated some 50,000 during the War. And many had never flown out of sight of land before leaving "Uncle Sugar" for a war zone. Yet the huge majority found their way across oceans and continents without getting lost or running out of fuel --- a stirring tribute to the AAF's educational establishments.

Cadet To Colonel:

It was possible for a flying cadet at the time of Pearl Harbor to finish the war with eagles on his shoulders. That was the record of John D. Landers, a 21-year-old Texan, who was commissioned a second lieutenant on December 12, 1941. He joined his combat squadron with 209 hours total flight time, including 20 in P-40s. He finished the war as a full colonel, commanding an 8th Air Force Group --- at age 24.

As the training pipeline filled up, however those low figures became exceptions.

By early 1944, the average AAF fighter pilot entering combat had logged at least 450 hours, usually including 250 hours in training. At the same time, many captains and first lieutenants claimed over 600 hours.

FACT:

At its height in mid-1944, the Army Air Forces had 2.6 million people and nearly 80,000 aircraft of all types.

Today the US Air Force employs 327,000 active personnel (plus 170,000 civilians) with 5,500+ manned and perhaps 200 unmanned aircraft.

The 2009 figures represent about 12 percent of the manpower and 7 percent of the airplanes of the WWII peak.

IN SUMMATION:

Whether there will ever be another war like that experienced in 1940-45 is doubtful, as fighters and bombers have given way to helicopters and remotely-controlled drones over Afghanistan and Iraq . But within living memory, men left the earth *in 1,000-plane formations* and fought major battles five miles high, leaving a legacy that remains timeless

Future News letters

To make future Newsletters interesting your topical articles or stories, not necessarily aircraft related will be most welcome, and should be forwarded to secretary@brcmac.org.uk for inclusion as appropriate.

Until the next Newsletter we can only hope for some decent weather and a bit of good flying.